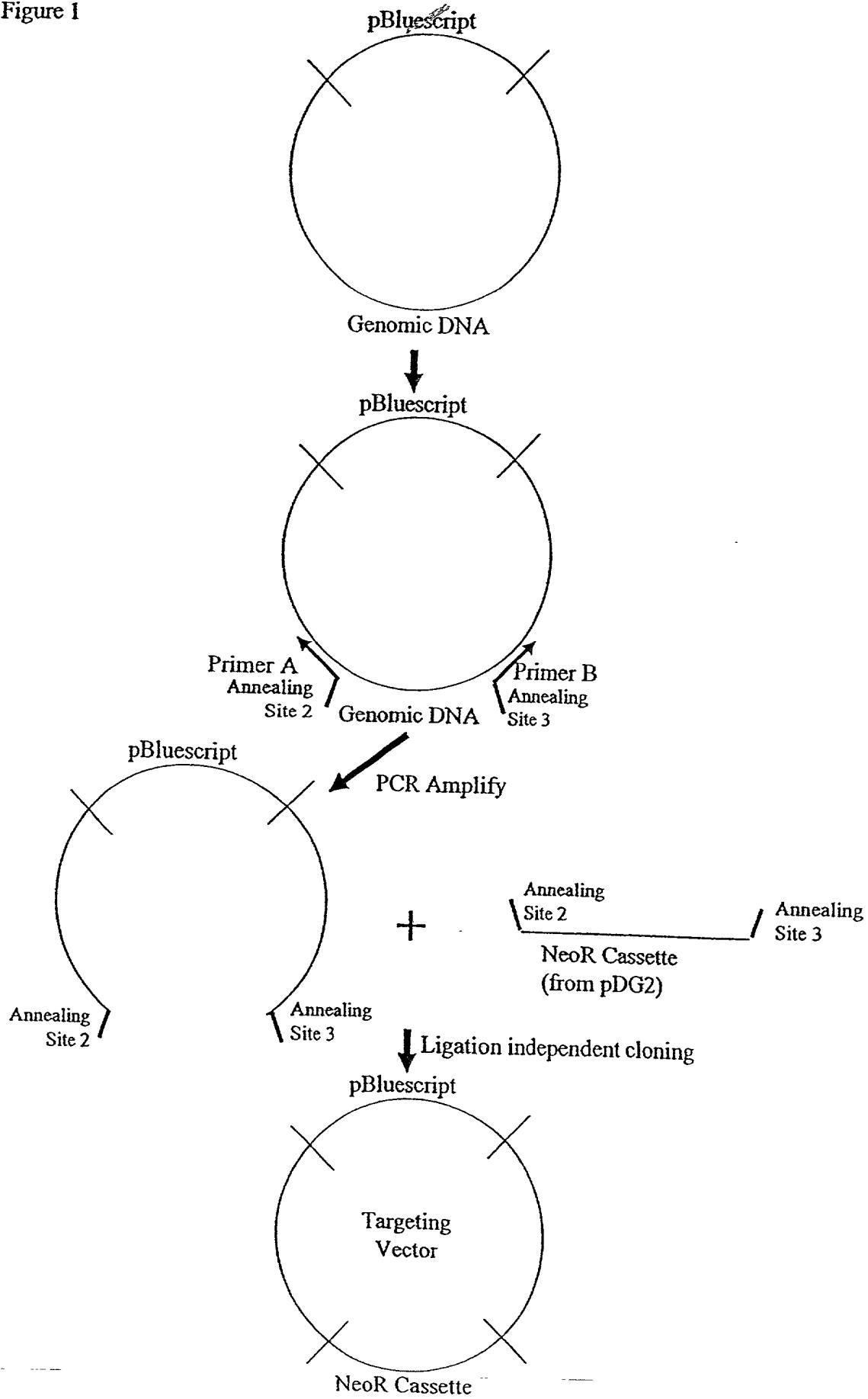


Figure 1



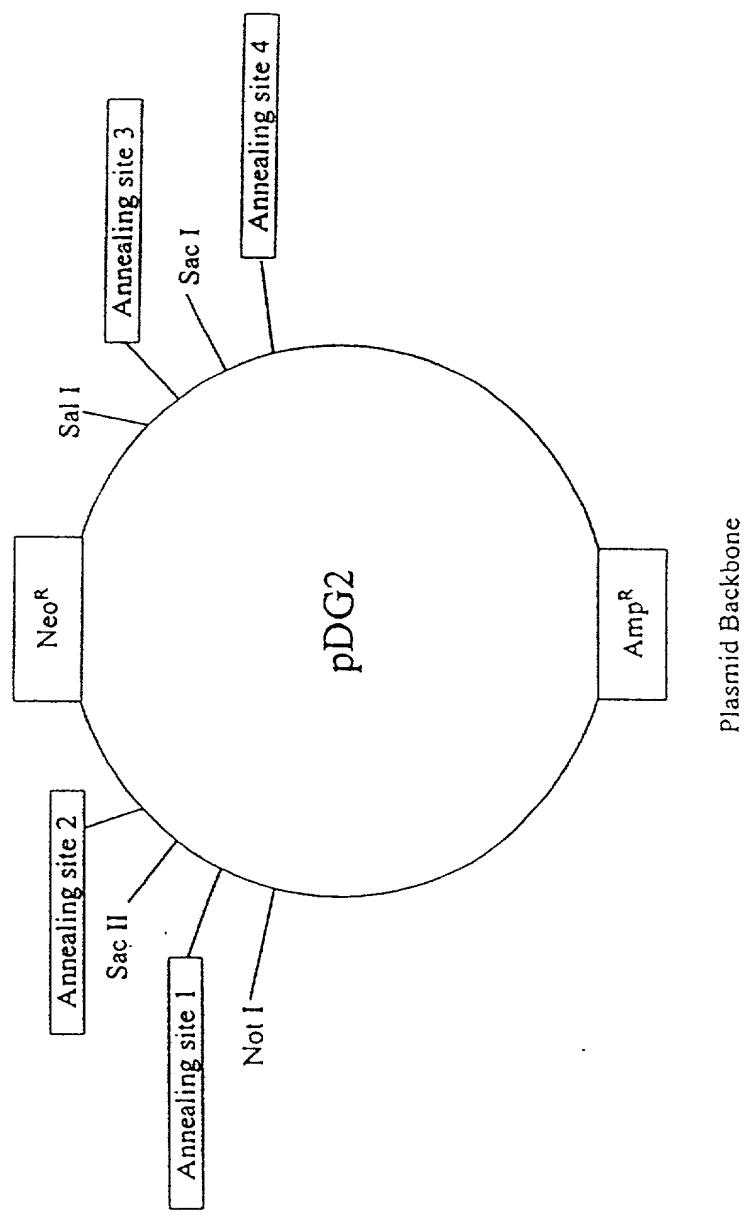


FIGURE 2A

Plasmid Backbone

FIGURE 2B

pDG2.

GTAACTACGTCAGGTGGCACTTTGGGAAATGTGCGCGAACCCCTATTGTTTATTTCTAAATACTTAAATA
TGTATCCGCTCATGAGACAATAACCCCTGATAAATGCTCAATAATATTGAAAAGGAAGAGTATGAGTATTCAACATTTC
CGTGTGCCCTTATTCCCTTTGCGGCATTTGCCCTCTGTTTCTCACCCAGAACGCTGGTAAAGTAAAGA
TGCTGAAGATCAGTTGGGTGACGAGTGGTTACATGAACTGGATCTAACAGCGTAAGATCTTGAGAGTTTCGCC
CCGAAGAACGTTCTCCAATGATGAGCACTTTAAAGTTCTGCTATGTGGCGGTATTATCCGTTGACGCCGGCAA
GAGCAACTCGGTGCCGCATACACTATTCTCAGAATGACTGGTTGAGTACTCACCAAGTCACAGAAAAGCATCTTACGGA
TGGCATGACAGTAAGAGAATTATGCACTGCTGCCATAACCATGAGTATAACACTGCGGCCACTTACTCTGACAACGA
TCGGAGGACGAAGGAGCTAACCGTTTTTGACAAACATGGGGATCATGTAACCTGCCCTGATGTTGGGAACCGAG
CTGAATGAAGCCATACCAAAACGACGAGCGTACACCACGATGCTGAGCAATGGCAACAAACGTTGCCAAACTATTAAC
TGGCGAACTACTTACTCTAGCTCCGGCAACAATTAAAGACTGGATGGGGGATAAAAGTTGCAAGGACCACTCTGC
GCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAAATCTGGAGCCGGTGAGCGTGGCTCGCGTATCATTGAGCA
CTGGGGCCAGTGTAAAGCCCTCCGTTACAGCTAGTTATCTACACGACGGGAGTCAAGGCAACTATGGATGAACGAAATAG
ACAGATCGTGAAGATAGGTGCTCACTGATTAAGCATTGTAACGTGACGACCAAGTGTACTCATATAACTTTAGATTG
ATTACCCCCGGTGTAAATCAGAAAAGCCCCAAAAGGAGAAGTGTATAAGCAATTATTTAAATTGTAACGTTAATA
TTTGTAAATTGCGTTAAATTGTTAATCAGCTATTAACTGCGTAACTTAAACATGGCGAAATCGGAAAATCCCTTAT
AAATCAAAGAAATAGCCGAGATAGGGTTGAGTGTGTTCAAGTGGAAAGAGTCCACTATTAAAGAACGTGGACTC
CAACGTCAAAGGGCGAAAACCGTCTATCGCGCATGGCCACTACGTGAACCATCACCAAATCAAGTTTGGGT
CGAGGTGCCGTAAGCACTAAATCGGAACCTAAAGGGAGCCCCGATTAGAGCTGACGGGAAACGCAACGTGGCGA
GAAAGGAAGGGAAAGAGCGAAAGGAGCGGGCGTAGGGCGTGGCAAGTGTAGCGGTACGCTGCCGTAAACACCACA
CCCGCCGCGCTTAATCGGCCGTACAGGGCCGTTAAAGGATCTAGGTAAGATCTTTGATAATCTCATGACCAAA
TCCCTTAACGTGAGTTTGTGTTCACTGAGCTCAGACCCCTAGAAAAGATCAAAGGATCTCTGAGATCTTTTTT
CTGCGCTAATCTGCTGTTGAAACAAAAAACCGCGTACCGCGTGGTTGTTGCGGATCAAGAGCTACCAAC
TCTTTTCCGAAGGTAACTGGCTCAGCAGCGCAGATAACAAATCTGCTCTAGTGTAGCCGTAGTTAGGCCACC
ACTTCAAGAACTCTGTAAGCCGCTACATACTCGCTCTGTAATCTGTTACCACTGGCTGCTGCCAGTGGCGATAAG
TCGTTGCTTACCGGGTGGACTCAAGACGATAGTTACCGATAAGGCGCAGCGTGGCTGCTGAACGGGGGGTTCGTGAC
ACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAAGCTATGAGAAAGGCCACGCTCCCG
AAGGGAGAAAGGGAGCAGGTACCGGTAACCGGAGGGCTGGAAACAGGAGAGCGCACAGGGAGCTCCAGGGGAAAC
GCCGGTATCTTATAGTCTGCGGTTTCCGCACCTCTGACTTGAGCGTCAAGTGTGATGCTGTCAGGGGGCG
GAGCCTATGAAAACGCCAGAACCGGGCTTTACGGTTCTGGCTTCTGGCTTCTGCTCACATGTAATGT
AGTTAGCTCACTCATTAGGACCCCCAGGTTTACACTTATGCTCCGCTGCTATGTTGTTGAGGAAATTGAGCGGATA
ACAATTTCACACGAAACAGCTATGACCATGATTACGCCAGCTACGTAAACGACTCACTAGGCCCGCGTTAAC
AATGTGCTCCTCTGGCTTGTGCTCCGGCCAAGCCAGACAAGAACAGTTGACGTCAGCTTCCCGGACGCGTCT
AGCGCGCGCCGAACTCTGTCAGGATTGCAAGGGCCCTGCAAGTCAATTCTACCGGGTAGGGAGGCCTTCCCAAGG
CAGTCTGGAGCATGCGCTTACAGCGCCCGTGGCACTTGGCGTACACAAGTGGCTCTGGCTCGCACACATTCCACA
TCCACCGTAGGCCAACCGGCCGTTTGGTGGCCCTTCCGCGCACCTCTACTCTCCCTAGTCAGGAAGTTC
CCCCCGCCCCGAGCTCGCTGCAAGGAGCTGACAATGGAGTACGACGCTCACTAGTCTCGTGCAGATGGACAG
CACCGCTGAGCAATGGAGCGGTAGGCCTTGGGGCGGGCCAATAGCAGCTTGTCTCTGCTTCTGGCTCAG
GGCTGGGAAGGGTGGGTCCGGGGGGCTCAGGGCGGGCTCAGGGGGGGGGCGGGCGGAAGGTCTCCCGAGGGCC
GGCATTCTCGCACGCTTCAAAAGCGCACGCTGCGCTGTTCTCTCATCTCCGGCTTTCGACCTGCGCAGC
CAATATGGGATCGGCCATTGAAAGATGGACCGAGTTCTGGCCCTTGGGTGGAGAGGCTATTGGGCTATG
ACTGGGCACAACAGACAATCGCTGCTCTGATGCCCGTGTTCGGCTGTCAAGCGCAGGGGCCGTTCTTGT
AAGACCGACCTGTCCGGTGCCTGAACTGCAAGGACGGAGCGCGGGCTATGTGGCTGGCCACGACGGCGTTCC
TTGGCAGCTGCTGCTGACGTTGCACTGAAAGCGGAAGGGACTGGCTGCTATTGGGCAACTGCCGGGAGGATCTCC
TGTCACTCTCACCTGCTCTGCCAGAAAGTATCCATCATGGCTGATGCAATGCCGGCTGCTACGCTTGTACCGCT
ACCTGCCATTGACCAACGAAACATCGCATCGAGCGAGCACGTAACCGGATGGAAGCGGTCTGTGATCAGGA
TGATCTGGACGAAAGACATCGGGCTCGGCCAGCGAACCTGTCGCCAGGCTCAAGGCGCGATGCCGACGGCGATG
ATCTCGCTGACCCATGGCGATGCCGTTGCGAATATCATGGGAAAATGGCCCTTTCTGATTATCATGACTGT
GGCCGGCTGGGTGGCGACCGTATCAGGACATAGCGTTGGCTACCGTGTATGGCTGAAAGAGCTTGGCGCAATG
GGCTGACCGCTTCTCGTCTTACGGTATCGCGTCCCGATTCCGAGCGCATGCCCTCTGACCGAGT
TCTTCTGAGGGGATCGATCCGCTGTAAGTCTGAGAAATTGATGATCTATTAAACAATAAGATGTCACAAATGG
AAGTTTTCTGTCATACTTTGTTAAGAAGGGTGAAGAACAGAGTACCTACATTTGAGTGGGAGGTTGGAGCTGGGG
GTGGGGGGGGGGGGATTAGATAAAATGCTGCTTTACTGAAGGCTTTACTATTGCTTATGATAATGTTCATAG
TTGGATATCATATAAAACAGCAAAACCAATTAAAGGCCAGCTCATCTCCCTACACTCATGATCTAGATCTAGA
TCTCTGTTGGGATCATTTCTGTTGATGCCACTTGTGGTTCTAAGTACTGTGTTTCAAAATGTCAGTTCA
TAGCCTGAAAGAACGAGATCAGCAGCCCTGTTCCACATACACTCATCTCAGTATTGTTGCAAGTCTAATTCCAT
CAGAAGCTGACTCTAGATCTGATGCCAGCTAGGCCGTCACCTCAGTGTACAGGTTACCAAGGCTCTCGCTG
TCCGTTGAGCTGACGACACAGGACACGCAAATTAAAGGCCGGCCGTAACCGTCTAGTCAGGCTTAAGTGA
TATTACGGACTGCCGTCGTTTACAACGTCGTGACTGGGAAACCCCTGGCTTACCAACTTAATGCCCTGCA
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AATGGCGCTCGCTGGTAATAAGCCCCCTCGCGGCTTTTTT

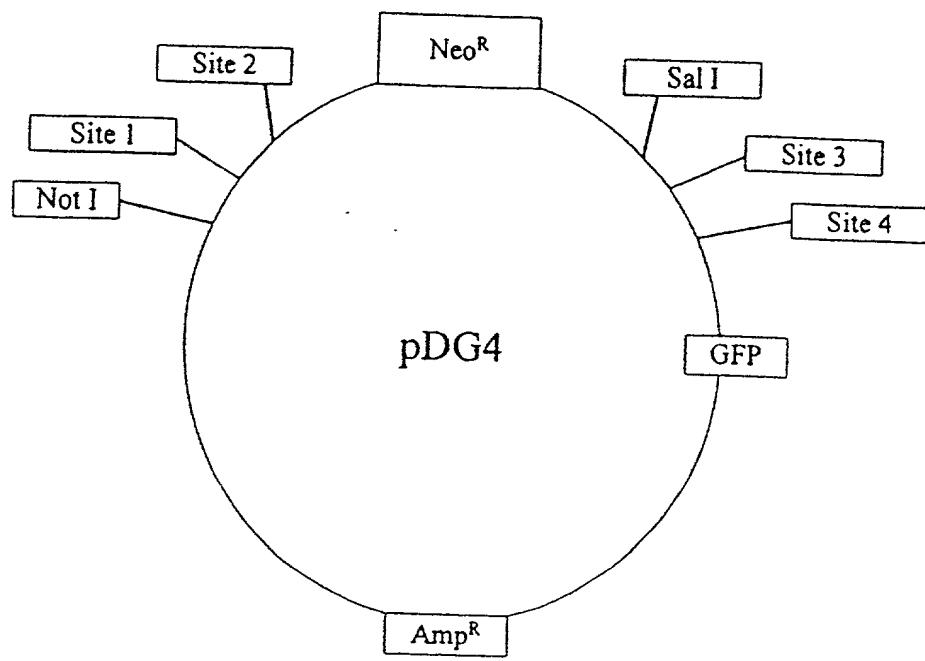


FIGURE 3A

FIGURE 3B

pDG4:

GTAAATAGTAATCAATTACGGGTCATTAGTTCATAGCCATATATGGAGTCCGCCAACATAACTACGGTAATGG
CCCGCCTGGCTGACCGCCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTCCTAGTAACGCCAATAGGA
CTTTCAATGACGTCAATGGTGGAGTATTACGGTAAACTGCCCACITGGCAGTACATCAAGTGTATCATGCCAAGT
ACGCCCTATTGACGTCAATGACGGAAAATGGCCGCTGGCATTAAAGCCAGTACATGACCTATGGACTTTCTAC
TTGGCAGTACATCACGTATTAGTCATCGTATTACCATGGTATGCGGTTTGGCAGTACATCAATGGCGTGGATAGC
GGTTGACTCACGGGATTTCAAGTCTCACCCATTGACGTCAATGGAGTTGTTGGCACCAAATCAACGGGAC
TTTCAAAATGTCGTAACAACCTGGCCCAATTGACGCAAAATGGCGTAGGCCTGACGGTGGAGCTATATAAGCAG
AGCTGGTTAGTGACCGTCAGATCGCTACCGCTACCCGCCACCATGGTACGGCAAGGGAGCTTCAACCGG
GGTGGTGGCCATCTGGTCAAGCGGAGCTAAACGGGCAAAAGTCAAGCTGGTGTCCGGAGGGCGAGGGCGATG
CCACCTACGGCAAGCTGACCCGAAGTTCATGTCACCCGGCAAGCTGCCCTGGCCACCTCGTACCC
CTGACCTACGGCTGCAAGTCTCACCCGCCACCATGGTACGGCAAGCTTCAAGTCCGCAATGCCA
AGGCTACGTCAGGAGCGCACCATCTTCAGGACGACGGCAACTACAAGACCCGGCGAGGTGAAAGTCAAGG
ACACCCCTGTGAAACCGCATGACGTCAGGACATGACTCAAGGAGGAGCGAACATCTGGGCAAAAGCTGGAGTAC
AACTAACACAGCCACAACGCTATATCATGGCCACAAGCAGAACGGCATCAAGTGAACCTCAAGATCGCCACAA
CATCGAGGACGGCAGCGTCAGCTCGCCGACCACTACCGCAGAACACCCCCATCGGCACGGCCCGTGTGCTGCC
ACAACCAACTACCTGAGGACCCAGTCCGCCCTGAGCAAAGACCCCAACGAGAACGCGCATCACATGGTCTGCTGGAGTC
GTGACCGCCGCCGGATCACTCGGCATGGACGAGCTGACAAGTCCGACTCAGATCCACCGGATCTAGATAACTGAT
CATATCAGCCATACCACATTGTAGAGGTTTACTTGCTTAAAAAACCTCCACACCTCCCTGAAACCTGAAACATA
AAATGAATGCAATTGTTGTTAACTTGTTTATTGCACTTATAATGGTAAACAAATAGCAATAGCATCACAAATTTC
ACAATAAAAGCATTTTTCACTGCATTCTAGTTGTTGTCACACTCATCAATGATCTAACGCGAACTACGTCA
GGTGGCACTTTGGGGAAATGTCGCGGAAACCCCTATTGTTTATTGTTCTAAATACATTCAAAATGATCCGCTCAT
GAGACAATAACCTGATAATGCTCAATAATATTGAAAAGGAAGCTATGAGTATTCAACATTCTCGTGTGCCCTTA
TTCCCTTTTGCGCAATTGCTTCTCTGTTTGTCAACCCAGAACGCTGGTAAAGTAAAGATGCTGAAGATCAG
TTGGGTGCAAGCTGGGTTACATGCAACTGGATCTCAACAGCGTAAAGTCTTGTGAGGTTGCGCCCGAAGAACGTT
TCCAATGATGAGCACTTTAAAGTCTGCTATGTCAGGCGGCTTATTACCGTGTGAGCAATGGCAACAGTGGC
GCCGCAACACTATTCTCAGATGACTTGGTGTAGTACTCACCAGTCACAGAAAAGCATCTTACCGATGGCATGACAGTA
AGAGAATTATGCACTGCTGCCATAACCATGAGTATAACACTCGGCCAACCTACTCTGACAACGATCGGAGGACCGAA
GGAGCTAACCGCTTTTGCAACACATGGGGATCATGTAACCTCGCTTGTGAGGTTGCGCCGGAAACGGAGCTGAATGAA
TACCAACGACGAGCGTGAACCCACGATGCTGTAGCAATGGCAACAGTGGCACAACACTTAAACTGGCAACTACTT
ACTCTAGCTCCCGCAACAATTAAATAGACTGGATGGAGGCGATAAAGTTGCAAGGACCACTCTGCGCTCGGCCCTCC
GGCTGGCTGGTTATTGCTGATAAAATCTGGCGGTGAGCGTGGGTCTCGCGTATCTGCACTGGGCCAGATG
GTAAGCCCTCCGATCGTAGTTACTACACGACGGGAGTCAGGCAACTATGGATGAAACGAAATAGACAGATCGTGTAG
ATAGGTGCTCACTGATTAAGCATTGGTAACTGTCAGGACAGTTACTCATATATACTTAAATTGATAATTGTTAACCGGTT
GATAATCAGAAAAGCCCCAAAACAGGAAGATTGATAACGAAATATTAAATTGAAACGTTAAATTGTTAAAATT
CGCGTTAAATTGTTAAATCAGCTCAATTAAACATAGGCGAATCGGCAAATCCCTTATAAAATCAAAGAAT
AGGCCAGAGTAGGGTTGAGTGTGTTCCAGTTGAAACAGAGTCCACTTAAAGAACGTTGACTCCAACGTCAAAGGG
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AGCACAATCGGAAACCTAAAGGGAGCCCCGATTAGAGCTTGTGAGGGAAAGCGAACGTGGCAGAAAGGAAGGGAA
GAAAGCGAAAGGAGCGGGCGTAGGGCGTGGCAAGTGTAGCGGTACCGTGTGCGTAACACCAACCCGCCGCGCTTA
ATCGGCCGTACAGGGCGCTAAAAGGATCTAGGTGAAGATCTTTGATAATCTCATGACCAAAATCCCTAACGTGA
GTTTCGTTCACTGAGCGTCAACCCCGTAGAAAAGGATCAAAGGATCTTGTGAGGATCTTGTGAGGATCTTGTGCG
GGTGTGCAAACAAAAAACACCGCTACAGCGGTGGTTGTCGGATCAAGGAGTACCAACTCTTCCCGAAG
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GGTTGGACTCAAGACGATAGTTACCGATAAGGCGCAGCGTGGCTGAACGGGGGGTCTGTCACACAGCCCAGCTG
GAGCGAACCTACCCGAACCTGAGGATACCTACAGCGTGAGCTATGAGAAAGCGCAAGCTCCCGAACGGGAGAAAGGC
GGACAGGTATCGGTAAGCGCAGGGTGGAAACAGGAGAGCGCACGAGGGAGCTTCAAGGGGAAACCCCTGGTATCTT
ATAGTCTGTGGTTTCGCCACCTCTGACTTGAGCGTCGATTGAGTGTGCTGAGGGGGCGAGCTATGGAAA
AACGCCAGAACCGGCCCTTACGGTTCTGCCCTTGTGCTCACATGTAATGAGTTAGCTCACTC
ATTAGGCACCCCAAGGCTTACCTTATGCTCCGGCTCGTATGTTGTTGGAATTGAGCGGATAACAAATTCAACACA
GGAACACGATGACCATGATTACGCCAACGCTACGTAATACGACTACTAGGCGCCGCTTAAACAAATGTCCTCT
TGGCTTGTGCTCCGGGGCAAGCAGAACGAAACAGTTGAGCTCAAGCTTCCGGGAGCGTCTCCAGGCGTGTAGCG
GCCCTTGTGAGCCCCGCTGGCACTTGGCGTACACAGTGGCTCTGGCTCGCACACATCCACACCGGTAGCG
CCAACCGGCTCGTTCTGGTGGCCCTTGGCCACCTTACTCTCCCTAGTCAGGAAGTCCCCCGGCCCGC
AGCTCGCTCGCAGGAGCTGACAAATGGAAGTAGCAGCTCTACTAGTCGTGCAAGTGGACAGCACCGCTGAGCAA
TGGAGCGGGTAGGCCATTGGGAGCGGCCAATAGCAGCTTGTCTCTGCTTCTGGCTCAGAGGCTGGGAGGG
TGGTCCGGGGCGGGCTCAGGGCGGGCTCAGGGCGGGCGGAAGGCTCTCCGAGGCCCGGCTTCTGAC
GCTTCAAAAGCGCACGCTGCGCTGTTCTCTCTCATCTCCGGCTTCTGACCTGCAAGGCAATATGGATCG
GCCATTGAACAAGATGGATTGACGCAAGGTTCTCCGGCCGCTTGGGTGAGAGGCTATTCGGTATGACTGGCACA
GACAATCGGCTGCTGTGATGCCCGTGTCCGGCTGTCAGCGCAGGGCGCCGGTCTTGTCAAGGACCCGACCTGT
CCGGTGCCTGAATGAACTGCAAGGAGCGAGGGAGCTATCTGGCTGGCCACGACGGGCTTCTTGTGCG
CTCGACGTTGTCAGTGAAGCGGAAAGGACTGGCTGCTATTGGCGAAGTGGCCGGGAGGATCTCTGTCATCTCACCT

TGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCCGTGCATACGGCTGATCCGGCTACCTGCCATTG
ACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTCGATCAGGATGATCTGGACGAA
GAGCATCAGGGGCTCGCGCAGCGAAGTCTGCCAGGCTCAAGGCAGCGATGCCGACGGCGATGATCTCGTCGTGAC
CCATGGCGATGCCCTGCTTGCGAATATCATGGTGGAAAATGGCCGTTTCTGGATTCATGACTTGGCCGGCTGGGTG
TGGCGGACCGTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGCGAATGGCTGACCGCTTC
CTCGTCTTACGGTATGCCGCTCCGATTGCGAGCGCATGCCCTCATGCCCTCTTGACGAGTTCTTGTAGGGGA
TCGATCCGCTCTGTAAGTCTGAGAAATTGATGATCTATTAACAATAAAAGATGTCACAAAAATGGAAGTTTCTCTG
CATACTTGTTAAGAAGGGTGAGAACAGAGTACCTACATTTGAATGGAAGGATTGGAGCTACGGGGTGGGGTGGGGT
GGGATTAGATAAATGCCGCTTTACTGAAGGCTTTACTATTGCTTATGATAATGTTCATAGTTGGATATCATAA
TTAAACAAGCAAACCAAATTAAAGGGCCAGCTCATTCTCCCACTCATGATCTATAGATCTATAGATCTCTCGTGGGAT
CATTGTTTCTCTGATTCCACCTTGTGGTTCTAAGTACTGTGTTCCAATGTGTCAGTTCATAGCCTGAAGAAC
GAGATCAGCAGCCTCTGTTCCACATACACTCATTCTCAGTATTGTTGCAAGGTTCTAATTCATCAGAAGCTGACTC
TAGATCTGGATCCGCCAGCTAGGCCGTGACCTCGAGTGATCAGGTACCAAGGTCTCGCTGTGTCCGTTGAGCTCG
ACGACACAGGACACGCAAATTAAATTAAAGGCCGGCCGTACCCCTAGTCAGGCTTAAGTGAGTCGTATTACGGACTGG
CCGTGTTTACAACGTCGTGACTGGGAAACCTGGCTTACCCAACTTAATGCCCTTGCAAGCACATCCCCCTTCGCC
AGCTGGCGTAATAGCGAAGAGGCCCGCACCGATGCCCTTCCAAACAGTTGCGCAGCCTGAATGGCGAATGGCGCTTCGC
TTGTAATAAGCCCCTCGCGGGCTTTTTTT

FIGURE 3B (Continuted)

Annealing site	Sequence	Sequence after digestion
1	5' tgtgtctcttttgttgccttc... 3' 3' acacgaggagaaacccaaacggtt... 5'	5' tgtgtctcttttgttgccttc... 3' 3' ctgggttttgttgccttgcccaa... tt... 5'
2	5' ctgggttttgttgccttgcccaa... 3' 3' gaccaagaacacgaaaccgggtt... 5'	5' ctgggttttgttgccttgcccaa... tt... 5'
3	5' ggtccctcgctctgtgtccgtt... 3' 3' ccaggaggcagacaacaggaaactt... 5'	5' ggtccctcgctctgtgtccgtt... tt... 5'
4	5' tttgtgttgtccgttgtcgtaaa... 3' 3' aaacggcacaggacacagcaggctt... 5'	5' tttgtgttgtccgttgtcgtaaa... tt... 5'

FIGURE 4

Annealing site	Sequence		Sequence after digestion	
1	5'	AAtgtgtctccctttggcttCCGC	3'	5' AA
	3'	Ttacacgaggaaaccgaaccaaagg	5'	3' Ttacacgaggagaaccgaaacggg
2	5'	AAActggttcttgttggcttggCCGC	3'	5' AA
	3'	Ttgaccaagaacagaaccggg	5'	3' Ttgaccaagaacagaccggg
3	5'	AAAGgtccctcgctctgttccgttGAGCT	3'	5' AA
	3'	Ttccaggaggcgagacacaggcaac	5'	3' Ttccaggaggcgagacacaggcaac
4	5'	AAAttgtgggttcctgtcgctGAGCT	3'	5' AA
	3'	Ttaaacccacaggacacaggcagc	5'	3' Ttaaacccacaggacacaggcagc

FIGURE 5

FIGURE 6

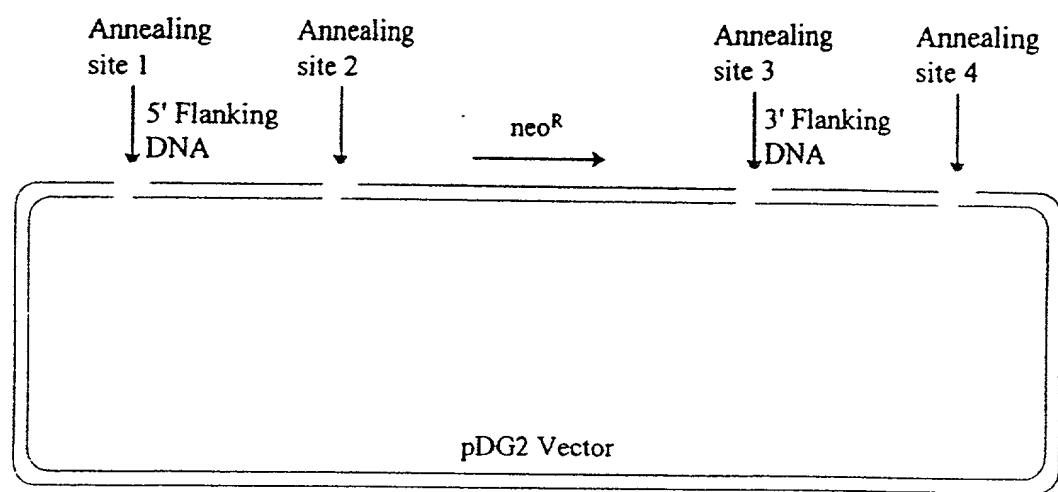
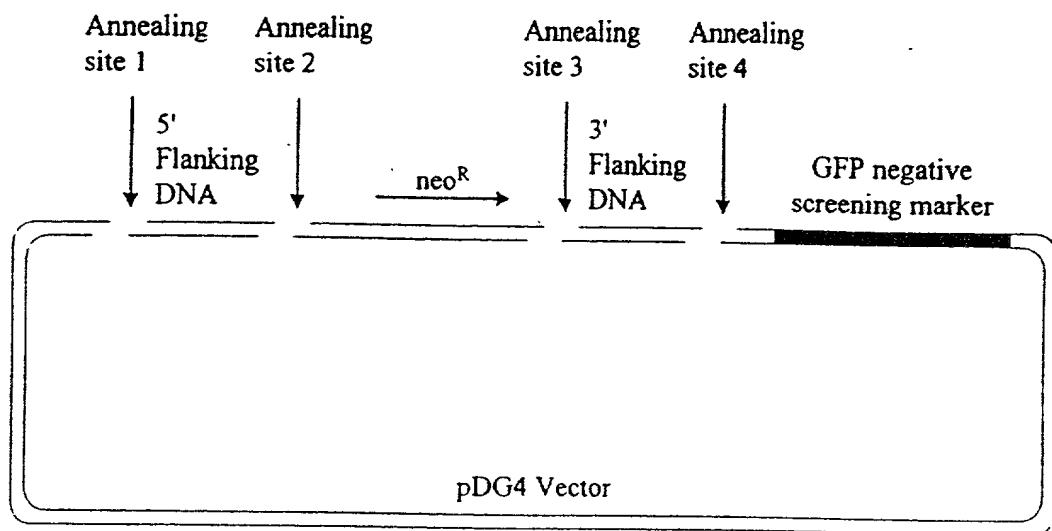


FIGURE 7



TTCCCTGACAAGACTATGTCCACTCAGGAGCCCCAGAAGAGTCTTCTGGGTTCTCTCAACTCCAATGCCAC
CTCTCACCTTGGACTGGCCACCAACCAGTCAGAGCCTGGTGCCTGTATGTGTCATCCCAGATGGCCTC
TTCCCTAGCCTAGGGCTGGTGAAGTCTGGTGGAGAAATGTGCTGGTTGTATGCCATCACCAAAAACCGCA
ACCTGCACTCGCCCATGTATTACTTCATCTGCTGCCTGGCCCTGTCTGACCTGATGGTAAGTGTCA
CGTGCTGGAGACTACTATCATCCTGCTGGAGGTGGCATCCTGGTGGCCAGAGTGGCTTGGTGCAG
CAGCTGGACAACCTCATTGACGTGCTCATCTGGCCTCCATGGTGTCCAGTCTGCTTCTGGCATTCA
TTGCTATAGACCGCTACATCTCCATCTCTATGCGCTGCCTATCACAGCATCGTACGCTGCCAGAGC
ACGACGGGCTGCTGGCATCTGGATGGTCAGCATCGTCTCCAGCACCCCTTTATCACCTACTACAAG
CACACAGCGTTCTGCTCGCTCGTCACTTCTTCTAGCCATGCTGGCACTCATGGCATTCTGTATG
CCCACATGTTCACCGAGAGCGTGCACAGCTCCAGGGATTGCCAGCTCCACAAAAGGCCGGTCCAT
CCGCCAAGGCTTCTGCCTCAAGGGTGTGCCACCCCTACTATCCTCTGGGATTTCTTCTGTGCTGG
GGCCCCCTTCTTCCTGCATCTTGTCACTCGTCCCTGCCCCAGCACCCCCACCTGCAGCTGCATCTTCA
AGAACCTTCAACCTTCTCCTCCATCGTCCACTGTTGACCCCTCATCTATGCTTTCG
CAGCCAGGAGCTCCGATGACACTCAAGGAGGTGCTGTGCTCCCTGGTATCAGAGGGCCTGGCAG
AGGGTGACAGTGTATCCAGTGGCCTGCATCTGTGAGACCACAGGTACTCATCCCTTCTGATCTCCATT
TGTCTAAGGGTCGACAGGATGAGCTTAAATAAGAAACCCAGAGTGCCTGGGCCAGGAGAAAGGTAAC
TGTGACTGCAGGGCTACCCAGGGCAGCTACGGGAAGTGGAGGAGACAGGGATGGAACTCTAGCCCTGA
GCAAGGGTCAGACCACAGGCTCCTGAAGAGCTTCACCTCTCCCCACCTACAGGCAACTCCTGCTCAAGCC
(SEQ ID NO: 19)

Targeting Vector (5' arm; 200 bp flanking neo insert):

CCGACAACACATGAAGTGAATCAGAACAGCTGGGGGCTGATACCACCTGGAGCTGCAG
CCTCCACAGACCGCTTCTACTTCCTGACAAGACTATGTCCACTCAGGAGCCCCAGAA
GAGTCTTCTGGGTTCTCTCAACTCCAATGCCACCTCTCACCTGGACTGCCACCAACC
AGTCAGAGCCTGGTGTCTGTATGTG (SEQ ID NO: 20)

Targeting Vector (3' arm; 200 bp flanking neo insert):

GACTACTATCATCCTGCTGCTGGAGGTGGCATCCTGGTGGCCAGAGTGGCTTGGT
CAGCAGCTGGACAACCTCATTGACGTGCTCATCTGTGGCTCATGGTGTCCAGTCTCT
GCTTCTGGGATCATTGCTATAGACCGCTACATCTCCATCTTCTATGCGCTCGTTAT
CACAGCATCGTACGCTGCCAGAG (SEQ ID NO: 21)

FIG. 8